

IN THE U.S. PATENT AND TRADEMARK OFFICE

U.S. Appl. No.: 10/536,736 Confirmation No.: 4693
Title: COSMETIC COMPOSITION COMPRISING FLUORESCENT
NANOPARTICLES AS PIGMENTS
Inventor(s): Louis DUBERTRET, et al.
Filed: May 27, 2005
Art Unit: 1616
Examiner: Karpinski, Luke E
Docket No.: P08652US00/BAS
Customer No.: 000881

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

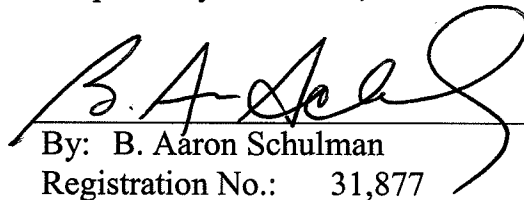
Letter to the Examiner

Sir:

This Letter is being filed as supplemental to the RCE and Response filed May 28, 2009.
The Applicant encloses the Resume of Benoit DUBERTRET, which was inadvertently left out of
the May 28, 2009 filing. Please consider the enclosed resume together with the RCE, Response
and Declaration under §132 previously filed.

Respectfully submitted,

Date: May 29, 2009


By: B. Aaron Schulman
Registration No.: 31,877

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TEL: 703-739-4900 ♦ FAX: 703-739-9577 ♦ CUSTOMER NO. 000881

Benoit DUBERTRET

Born June 25, 1970 in Paris. French.

Married, five children

Researcher at the C.N.R.S. since Octobre, 1st 2002.

Address: UPR 5 du C.N.R.S., Laboratoire Photons Et Matière
ESPCI, 10, Rue Vauquelin, 75005 Paris, France.
Tél : 01-40-79-45-92
Fax : 01-43-36-23-95
Mail: benoit.dubertret@espci.fr

Education :

1998-2002 : Post-Doc at the Rockefeller University, New York, USA (Lab. of A. Libchaber).
Janvier 1998 : PhD in physics, Université Louis Pasteur, Strasbourg. « *Theoretical study of disordered cellular systems. Model for the dynamics of epithelial tissues* ».
10/94-01/96 : Visiting scientist at the Massachusetts Institute of Technology, Cambridge, U.S.A. (Dept. of Mechanical Engineering).
1994 : Engineer from Ecole Nationale Supérieure de Physique de Strasbourg.
1994 : D.E.A. de physique et chimie de la matière condensée et des matériaux (U.L.P.).

Funding :

2008 : 4 projects funded by the A.N.R., 2 by the Région Ile-de-France
2007 : 1 project funded by the CNRS
2006 : 1 project funded by the ANVAR, 1 by the ESPCI
2006 : 1 project funded by the INCA (Institut National du Cancer)
2006 : 3 projects funded by the A.N.R.,
2005 : 2 projects funded by the A.N.R. (Agence Nationale de la Recherche).
2004 : « Human Frontier Science Programme, Young Investigators' Grant »
2003 : Grant from Société des Amis de l'E.S.P.C.I.
07/03--07/06 : ACI jeunes chercheurs
05/02--05/04 : S.B.I.R. grant phase II with Nanoprobes.
07/01--07/02 : « Norman and Rosita Winston » Fellowship.
09/00--02/01 : S.B.I.R. grant phase I with Nanoprobes.
03/98--12/99 : Galderma fellow.

Publications :

T. Pons, N. Lequeux, B. Mahler, S. Sasnouski, A. Fragola, and B. Dubertret
Synthesis of Near-Infrared-Emitting, Water-Soluble CdTeSe/CdZnS
Core/Shell Quantum Dots
Chemistry of Materials, 21, (8), 1418-1424 (2009)

P. Spinicelli, B. Mahler, S. Buil, X. Quelin, B. Dubertret, J.-P. Hermier
Non-Blinking Semiconductor Colloidal Quantum Dots for Biology,
Optoelectronics and Quantum Optics
ChemPhysChem, 10, (6), 879-882 (2009)

P. Spinicelli, S. Buil, X. Quélin, B. Mahler, B. Dubertret, J.-P. Hermier
Bright and grey states in CdSe-CdS nanocrystals exhibiting strongly reduced blinking
Physical Review Letters, 102, (13), 4 (2009)

I. Resa, H. Moreira, B. Bresson, B. Mahler, B. Dubertret, and H. Aubin
Synthesis of Monodisperse Superconducting Lead nanocrystals
Journal of Physical Chemistry C, 113, (17), 7120-7122 (2009)

Ithurria S. and Dubertret B.
Quasi 2D Colloidal CdSe Platelets with Thicknesses Controlled at the Atomic Level
JACS, **130**, 49 16504-16505 (2008)

F. Ducongé, T. Pons, C. Pestourie, L. Hérin, B. Thézé, K. Gombert, B. Mahler, F. Hinnen, B. Kuhnast, F. Dollé, B. Dubertret, B. Tavitian
Fluorine 18-labeled phospholipid quantum dot micelles for in vivo multimodal imaging from whole body to cellular scales.
Bioconjugate Chemistry **19**, 9 p. 921 (2008)

B. Mahler, P. Spinicelli, S. Buil, X. Quelin, J.-P. Hermier, B. Dubertret
Towards non-blinking colloidal quantum dots
Nat. Materials, **7**, 659 (2008)

P. F. Gardezabal-Rodriguez, E. Sepulveda, B. Dubertret and V. Lorient
Axial coding in full-field microscopy using three-dimensional structured illumination implemented with no moving parts
Optics Letters, **33**, 14, 1617 (2008)

E. Genin, O. Carion, B. Mahler, B. Dubertret, N. Ahrel, P. Charneau, E. Doris, C. Mioskowski
CrAsH-quantum dot nanohybrids for smart targeting of proteins
J. Am. Chem. Soc.; (Communication), **130**, 27, 8596-+ (2008)

N. Traver-Branger, F. Dubois, O. Carion, G. Carrot, B. Mahler, B. Dubertret, E. Doris, C. Mioskowski
Oligomeric PEG-phospholipids for solubilization and stabilization of fluorescent nanocrystals in water
Langmuir **24**, 7, 3016 (2008)

S. Ithurria, P. Guyot-Sionnest, B. Mahler, B. Dubertret
Mn²⁺ as a Radial Pressure Gauge in Colloidal Core/Shell Nanocrystals
Physical Review Letters **99**, 265501 (2007)

O. Carion, B. Mahler, T Pons, B. Dubertret
Synthesis, encapsulation, purification and coupling of single quantum dots in phospholipid micelles for their use in *in vivo* imaging
Nature Protocols **2**, (10), 2383-2390 (2007)

Optical analysis of beads encoded with quantum dots coated with a cationic polymer.

Ni. Allen, N. Lequeux, C. Chassenieux, G. Tessier, B. Dubertret
Advanced Materials, **19**, 4420–4425 (2007)

F. Chasles, B. Dubertret, A.C. Boccara
Sectioning strength, speed, resolution enhancement and signal/background of an
optimized structured illumination set up.
Optics Express **15** (24) : 16130-16140 (2007)

Beaune G, Dubertret B, Clement O, et al.
Giant vesicles containing magnetic nanoparticles and quantum dots: Feasibility
and tracking by fiber confocal fluorescence microscopy
Angewandte Chemie-International Edition **46** (28): 5421-5424 (2007)

Dubois, F.; Mahler, B.; Dubertret, B.; Doris, E.; Mioskowski, C.
A Versatile Strategy for Quantum Dot Ligand Exchange
J. Am. Chem. Soc., (Communication); 2007; **129**(3); 482-483

Aigouy L., Samson B., Julie G., Mathet V., Lequeux N., Allen C., Diaf H.,
Dubertret B.
A scanning near-field optical microscope working with a CdSe/ZnS quantum
dots based optical detector
Review of Scientific Instrument **77** (6): Art. No. 063702 JUN 2006

Chasles F. Dubertret B, Boccara AC
Full-field optical sectioning and three-dimensional localization of fluorescent
particles using focal plane modulation
Optics Letters, **31**, 9, 1274-1276 (2006)

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Dubertret B.
Encapsulation of magnetic and fluorescent nano-particles in emulsion droplets
Langmuir **21**, 4175-4179 (2005)

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In vivo imaging of Quantum Dots encapsulated in phospholipid micelles.
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Dubertret B., Liu S., Ouyang Q., and Libchaber A.
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Single mismatch detection using gold-quenched fluorescent oligonucleotides.
Nat. Biotechnol., **19**, 365--370 (2001).

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C. R. Acad. Sci., **323** Life Sciences, 49--56 (2000).

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Europhys. Lett, **45** (2), 143--148 (1999).
- Dubertret B., Aste T., Ohlenbusch H.M., and Rivier N.
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Phys. Rev. E, **58**, 6368--6378 (1998).
- Ohlenbusch H. M., Aste T., Dubertret B., and Rivier N.
The topological structure of 2D disordered cellular systems.
Euro. Phys. J. B, **2**, 211--220 (1998).
- Dubertret B., Rivier N., and Peshkin M.
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J. Phys. A: Math. Gen., **31**, 879--900 (1998).
- Dubertret B., Rivier N.,
Renewal of the epidermis: a topological mechanism.
Biophysical Journal, **73**, 38--44 (1997).
- Rivier N., Schliecker G. and Dubertret B.,
The stationary state of epithelia,
Acta Biotheoretica, **43**, 403--423 (1995).
- Rivier N. and Dubertret B.,
Why does skin stay smooth?
The dynamics of tissues in statistical equilibrium,
Phil. Mag. B, **72**, 311--322 (1995).

Fery-Forgues, S; Ibanez, A; Dubertret, B
Luminescent micro- and nanocrystals: What is changing with size
Actualité Chimique **317**, 42-46 (2008)

B. Dubertret
Quantum Dots- DNA detectives
Nature Materials **4** (11): 797-798, 2005

B. Dubertret
Boîtes quantiques en biologie : progrès récents
Médecine et Sciences **20**, 727—751 (2004)

N. Rivier et B. Dubertret
La topologie de l'épiderme
Pour la Science, Dossier 44 (Juillet/Sept. 2004), 104-109.

B. Dubertret
Un nouveau marqueur fluorescent pour l'imagerie in vivo
Médecine et Sciences **19**, 519--544 (2003).

N. Rivier, B. Dubertret

The renewal and statistical equilibrium of the epidermis: Biomechanics of tissues.
In Continuous Models and Discrete Systems, CMDS 9,
E. Inan and K.Z. Markov, eds., World Scientific (1998), 318–320

Rivier N., Dubertret B., Schliecker G.,
The stationary state of epithelial tissues
in Dynamics of Cell and Tissue Motion,

W. Alt, A. Deutsch, and G. Dunn eds., Birkhaeuser, Basel (1997), Ch. IV.9, 25–284.

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Europhysics news, 27 (5), 181 (1996)

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in Maximum Entropy and Bayesian Methods,
K.M. Hanson and R.N. Silver eds., Kluwer (1996), 285–294

Patent : Dubertret B., Noireaux V., Libchaber A.
« Water soluble metal and semi-conductor nanoparticle complexes. »
Filed in August 2002.
Gardezabal-Rodriguez P., Loriette V., Dubertret B.
« Microscopie optique plein champ, 3D, temps réel et ultrarésolue »
Filed in October 2007

Invited talks (international conferences):

European Society for Molecular Imaging
Hot topics in Molecular Imaging
Les Houches, France (February 4-8, 2008).
Fluorescent semiconductor nanocrystals for in vivo imaging

Second international meeting of the European Society for Molecular Imaging
Naples, Italy (June 14,15 2007)
In vivo imaging with quantum dots

SPIE Photonics West 2007,
San Jose, CA USA (January 20-25, 2007)
Quantum Dots beads

NIS Colloquium : Nanosized Systems for Molecular Imaging
Torino, Italy (November 10-11, 2006)
Fluorescent Semiconductor Nanocrystals for In Vivo Imaging

ICASSP 2006
Toulouse, France (May 15-19, 2006)
*Quantum Dots Nano-Particles Full Field Imaging With Optical Sectioning
and 3D Localization*

Cancernanotech Conference
Paris, France (May 17-18, 2006)
Quantum Dot nanoparticles for cancer detection

Nanobio Europe
Munster, Germany (22-24 Septembre 2005)
Quantum dots in nanobiotechnology

79th ACS Meeting
Colloid and Surface Science Symposium,
Potsdam, New York, USA (12-15 Juin, 2005)
In vivo imaging with quantum dots

2005 APS March meeting
Los Angeles, USA (21-26 Mars 2006)
In vivo imaging with quantum dots: application in cellular differentiation

46th Symposium of the Society for Histochemistry
Prague, Tchequie (22-25 Septembre 2004)
Design and principles of Quantum Dots and their use in biological applications

4th Workshop on Nanochemistry and Nanobiotechnology
Stockholm, Suède (25-27 Août 2004)
In Vivo Imaging with Quantum Dots Encapsulated in Phospholipid Micelles.

Symposium of the Society of Non Traditional Technology
Tokyo, Japon (01-04 Septembre 2004)
In vivo imaging of Xenopus embryo early stages development using Quantum Dots encapsulated in phospholipid micelles

Retraite Neurophysique
Québec, Canada. (10-11 Juin 2004)
In vivo imaging of quantum dots encapsulated in phospholipids micelle

OECD 25th annual meeting
Berlin, Allemagne (20-22 Mai 2004)
Quantum Dot – the link between a biological molecule and the researchers eye

Applied Medical Photonics: From tissue characterization to optical mammography
Berlin, Allemagne (22-25 Mai 2004)
In vivo imaging with Quantum Dots encapsulated in phospholipids micelles

Photonics and Optoelectronics Group seminar
Munich, Allemagne (26 Avril 2004)
Two examples of inorganic nanoprobe for biology : Gold quenched molecular beacons and in vivo imaging using quantum dots encapsulated in phospholipid micelles

International workshop on single molecule biophysics
Bangalore, Inde (4-5 Janvier 2004)

Novel optical probes for biological applications

Ernst Schering Research Foundation Workshop Molecular Imaging
Berlin, Allemagne (5-7 Novembre 2003)

Quantum dots for in vivo imaging applications - design principles - examples

Rencontres Internationales MINATEC
Grenoble, France (25 Septembre 2003)

Quantum Dots for biological application

Nanobiotechnologies II
Grenoble, France (22-24 April 2003)

Two examples of nano objects for biology: gold quenched molecular beacons and quantum dots encapsulated in phospholipid micelles.

International Symposium on Nanotechnology for Photonics and Opto-Electronics

Tokyo, Japon (5-6 Mars 2003).

In vivo imaging of quantum dots encapsulated in phospholipid micelles

MRS Fall Meeting

Boston, MA, USA (2-6 Décembre 2002).

Biological applications of water soluble quantum dots.

Johnson, Staci

From: Schulman, B. Aaron
Sent: Friday, May 29, 2009 9:38 AM
To: Johnson, Staci
Subject: FW: P08652US00/BAS - US No. 10/536736

Attachments: cvenglish.pdf



cvenglish.pdf
(139 KB)

Staci:

Please prepare a letter to the Examiner to submit the resume of B. Dubertret which was inadvertently not provided with his declaration. Thank you.

Bill Schulman
STITES & HARBISON PLLC
incorporating the former partnership of Larson & Taylor, PLC Transpotomac Plaza
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Alexandria, Virginia, 22314
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BSchulman@stites.com

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-----Original Message-----

From: Simone Kling [mailto:skling@lavoix.eu]
Sent: Friday, May 29, 2009 3:06 AM
To: Schulman, B. Aaron
Cc: Wright, Terry; Johnson, Staci; fcondaminet@lavoix.eu
Subject: RE: P08652US00/BAS - US No. 10/536736

Dear Bill:

Thank you very much.

Please find herewith enclosed the resume of B. Dubertret.

Kind Regards

Simone

-----Message d'origine-----

De : Schulman, B. Aaron [mailto:bschulman@stites.com] Envoyé : jeudi 28 mai 2009 21:28 À : skling@lavoix.eu Cc : Wright, Terry; Johnson, Staci; fcondaminet@lavoix.eu Objet : P08652US00/BAS - US No. 10/536736

Dear Simone:

Thank you for your E-mail and attachment. We will file the executed Declaration along with our response today, and will make minor changes to the response to be consistent with the new Declaration.

Please note that the declaration indicates that Dr. Dubertret's resume was attached, but we did not receive this. Can you forward this resume as soon as possible? We will file it with a supplemental response.

We will also check with the Examiner after this response is received to see if these new claims are acceptable.

Best regards.

Bill Schulman
STITES & HARBISON PLLC
incorporating the former partnership of Larson & Taylor, PLC Transpotomac Plaza
1199 North Fairfax Street, Suite 900
Alexandria, Virginia, 22314
Telephone: (703) 739-4900
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-----Original Message-----

From: Simone Kling [mailto:skling@lavoix.eu]
Sent: Thursday, May 28, 2009 11:14 AM
To: Schulman, B. Aaron
Cc: Wright, Terry; Johnson, Staci; fcondaminet@lavoix.eu
Subject: RE: 08652US00/BAS - US No. 10/536736
Importance: High

Dear Bill,

Please find herewith enclosed the declaration completed with the coinventor and signed by him.

If you find this declaration acceptable, please file it along with a suitable response to the outstanding office action, based on our comments sent yesterday, and together with an RCE.

Please do your best to file these elements by the deadline expiring today.

Note that the client needs to take a decision with regard to this application by end of August 2009. Could you call the Examiner to know his position in view of our arguments, so that, if necessary, we can set up an interview before end of August?

Of course, if you need any further information, please feel free to contact me any time.

Thank you for your assistance and again, sorry for the rush,

Regards

Simone Kling

-----Message d'origine-----

De : Schulman, B. Aaron [mailto:bschulman@stites.com] Envoyé : mercredi 27 mai 2009 19:09
À : Simone KLING Cc : Wright, Terry; Johnson, Staci Objet :
08652US00/BAS - US No. 10/536736 Importance : Haute

Dear Simone:

Thank you for your E-mail and attachments. We will begin to work on a response and look forward to any additional comments you may have.

In light of the fact that a Declaration will be filed, the response should be filed with an RCE.

However, if we do not get your approval to file by tomorrow, May 28th, we will need to file a Notice of Appeal in order to keep this case from going abandoned. If you can provide us with an indication by tomorrow that your client has approved your proposal, we can submit the response with an RCE and save paying the Notice of Appeal fees. If not, we will file the Notice of Appeal tomorrow and will plan to file the response and declaration only after we receive your approval to proceed.

We look forward to your confirmation of your client's instructions to proceed.

Best regards.

Bill Schulman
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-----Original Message-----

From: Simone KLING [mailto:skling@lavoix.eu]
Sent: Wednesday, May 27, 2009 12:53 PM
To: Schulman, B. Aaron
Subject: 08652US00/BAS - US No. 10/536736

Y.Ref. 08652US00/BAS
O.Ref. CRO/FC BET 05P0524

Re.: Patent application in United States of America No. 10/536736
In the name of DUBERTRET Louis
DUBERTRET Benoît
Corresponding to FR 02 14987

dear Bill,

Please find herewith our instructions to file a response to the pending office Action in connection with the above-mentioned application.

Best regards

Simone Kling Ph.D.

Conseil en Propriété Industrielle
European Patent Attorney

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www.lavoix.eu

Lavoix adopte la nomenclature européenne des noms de domaines. Notre site internet est donc désormais accessible sur www.lavoix.eu. Nos adresses courriel adoptent cette même nomenclature.

Lavoix is moving to the European domain name structure. Our website is thus accessible on www.lavoix.eu. Our email addresses adopt the same structure.

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